137871

0000022

THIRD WORK PLAN SUPPLEMENT
WAUKEGAN REMEDIAL SITE

Prepared for:

MANVILLE SALES CORPORATION

PRINTED ON

THIRD WORK PLAN SUPPLEMENT
WAUKEGAN REMEDIAL SITE

Prepared for:

MANVILLE SALES CORPORATION

JULY 1991
REF. NO. 2980(4)

CONESTOGA-ROVERS & ASSOCIATES

TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
2.0	SCOPE OF WORK	3
2.1	CLEARING AND CLOSE CUTTING	3
2.2	SURFACE CLEANUP	3
2.3	GRAVEL AND ASPHALTIC CONCRETE PAVING	4
2.3.1	General	4
2.3.2	Proof Rolling and Grading	4
2.3.3	Construction of Granular Sub-Base	5
2.3.4	Construction of Bituminous Surface Course	5
2.3.5	Placement of Vegetated Remedial Soil Cover	6
2.3.6	Removal and Decontamination of Railroad Tracks	6
3.0	HEALTH AND SAFETY	7
4.0	SCHEDULE	8

LIST OF FIGURES

		Following Page
FIGURE 1.1	SITE LOCATION MAP	1
FIGURE 1.2	AREA Y LOCATION	1
FIGURE 1.3	AREA Z LOCATION	1
FIGURE 2.1	LOCATION OF SURFACE CLEANING - AREA Y	3
FIGURE 2.2	LOCATION OF SURFACE CLEANING - AREA Z	3
FIGURE 2.3	AREA OF ASPHALTIC CONCRETE PAVING - AREA Y	4
FIGURE 2.4	AREA OF ASPHALTIC CONCRETE PAVING - AREA Z	4
FIGURE 2.5	TYPICAL CROSS SECTIONS - AREA Y	4
FIGURE 2.6	AREA OF VEGETATED SOIL COVER	6
FIGURE 2.7	TYPICAL CROSS SECTION - SOIL COVER - AREA Z	6

1.0 INTRODUCTION

By May 31, 1991, Manville Sales Corporation (Manville) completed remedial construction activities at its former waste disposal area (Site) located in Waukegan, Illinois (see Figure 1.1) in accordance with the Consent Decree signed December 31, 1987 and all subsequent attachments and work plan supplements.

The Third Work Plan Supplement presented hereafter was developed to address the remediation of two areas on the Manville Waukegan property, which were confirmed to contain asbestos containing materials (ACM). These two areas were not addressed by either the Amended Work Plan, First Work Plan Supplement dated April 28, 1989 or the Second Work Plan Supplement dated July 1990.

The work to be performed under this Third Work Plan Supplement consists of the remediation of two remaining areas of the Manville property which were confirmed to contain ACM, Area Y and Area Z, as delineated in Figures 1.2 and 1.3. The work will include, as applicable to the various subareas within Areas Y and Z, the following activities:

i) clearing and close cutting of vegetation;

ii) application of soil sterilant;

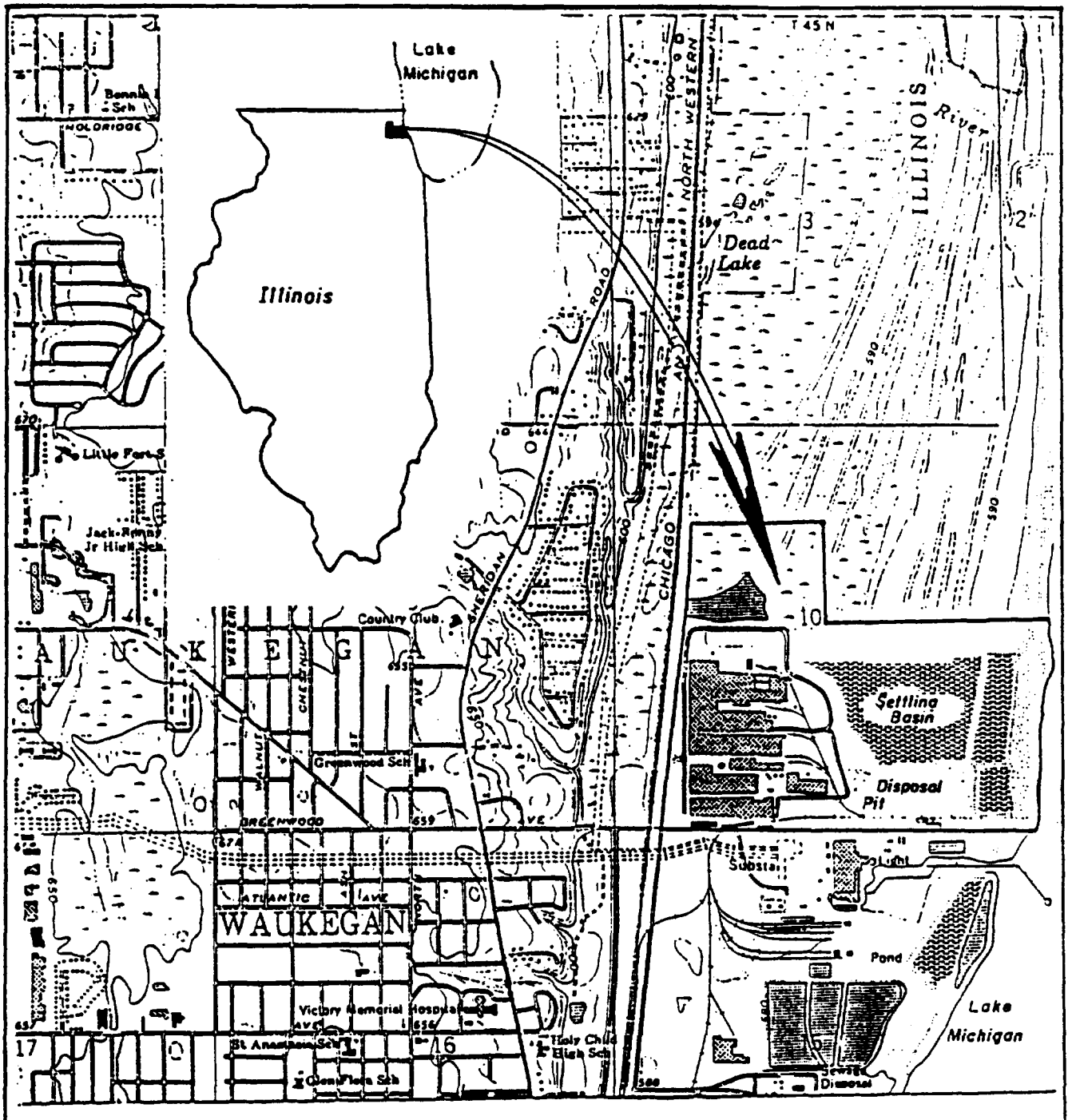


figure 1.1

SITE LOCATION MAP
MANVILLE PLANT SITE
Waukegan, Illinois

Map adapted from USGS Zion Quad. Map

CRA

2980-6/3/91-4-(C)-0

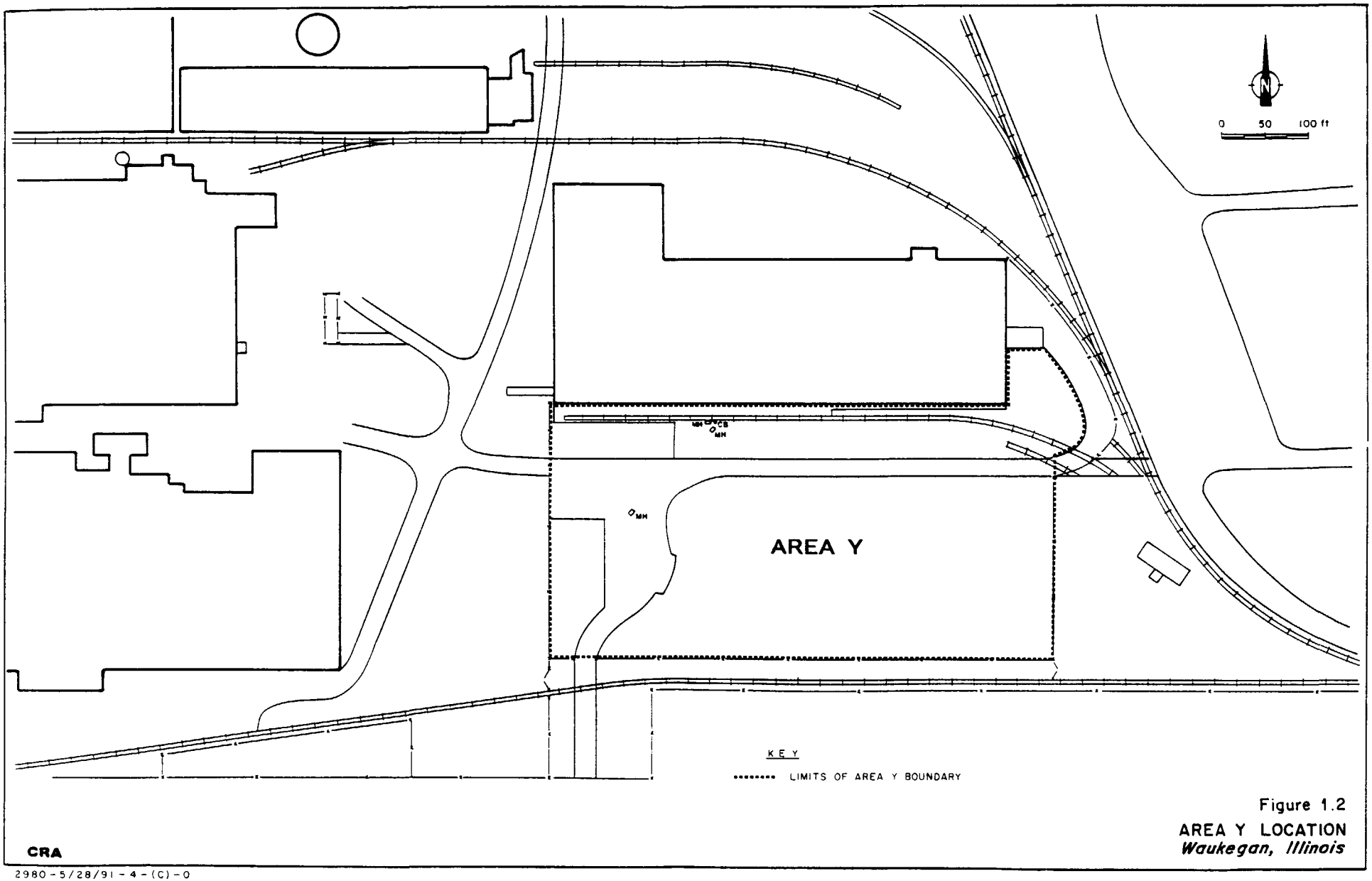


Figure 1.2
AREA Y LOCATION
Waukegan, Illinois

CRA

2980-5/28/91-4-(C)-0

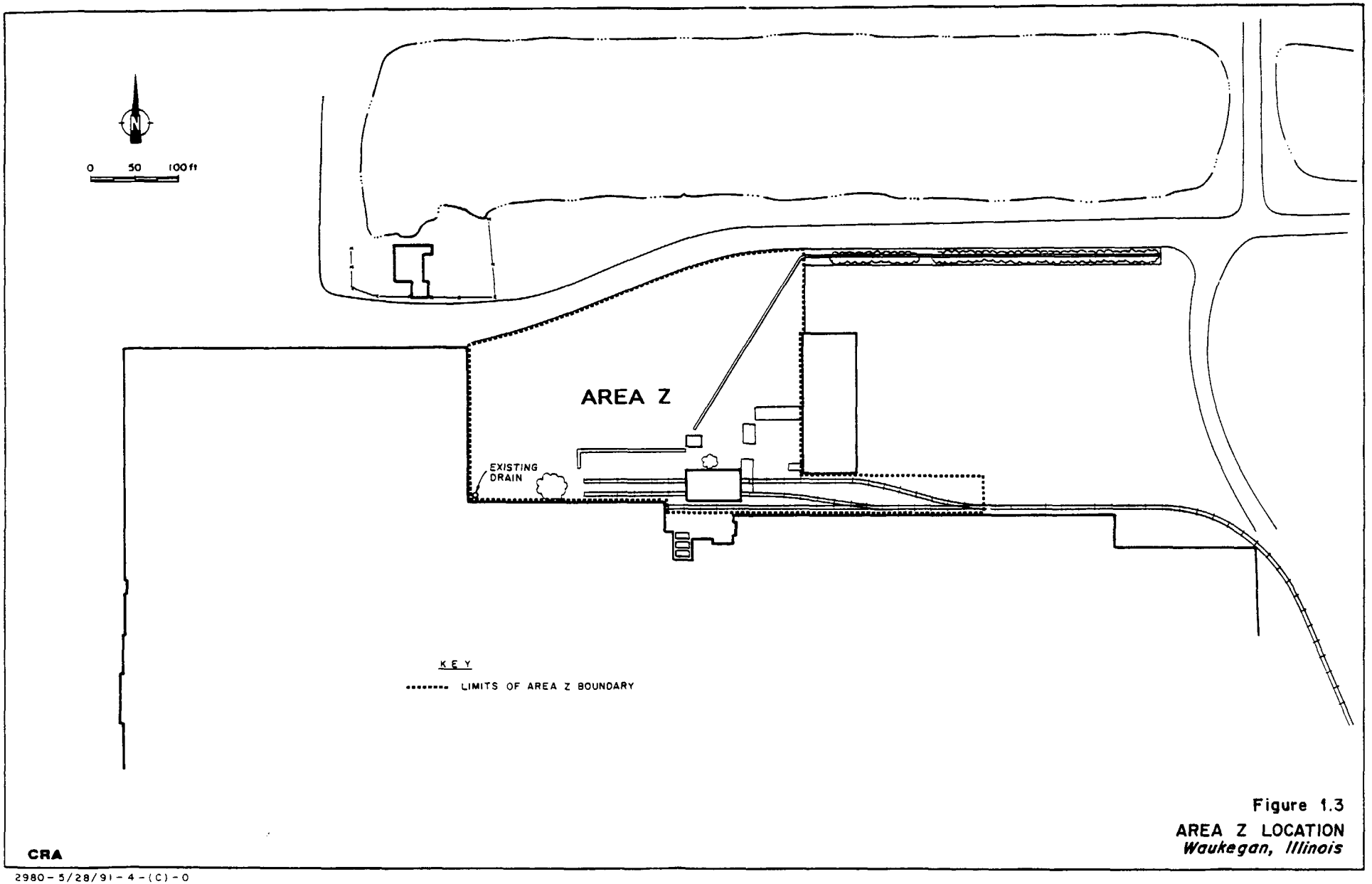


Figure 1.3
AREA Z LOCATION
Waukegan, Illinois

CRA

2980-5/28/91-4-(C)-0

iii) placement of an asphaltic concrete cover, including placement of a granular base course overlain by bituminous pavement;

iv) placement of a vegetated remedial soil cover consisting of sand, clay and topsoil components;

v) removal and decontamination of railroad track in Area Z prior to placement of granular base course;

vi) surface cleanup of designated areas;

2.0 SCOPE OF WORK

2.1 CLEARING AND CLOSE CUTTING

Areas to be remediated under this Third Work Plan Supplement will be close cut cleared of trees, bushes, brush and other debris which may affect the placement of granular subbase. All stumps will be removed to ground level. Grubbing will not be performed. Following close cutting, a soil sterilant will be applied in order to prevent regeneration of the existing poplar trees or other vegetative growth. All tree cuttings and brush generated by clearing and grubbing will be disposed of in the Active Miscellaneous Waste Disposal Area.

2.2 SURFACE CLEANUP

Areas identified on Figures 2.1 and 2.2 contain limited quantities of ACM at ground surface. All surficial potential ACM in these areas shall initially be thoroughly wetted with amended water. Following wetting, ACM shall be picked up and placed into double 6-mil, labelled polyethylene bags designed for asbestos containment. The bags will be voided of air spaces prior to sealing with duct tape. The bags of ACM generated from this activity will be transported to a short-term interim storage area on the plant Site and will ultimately be disposed of by Manville at an off-Site landfill in accordance with State and Federal regulations.

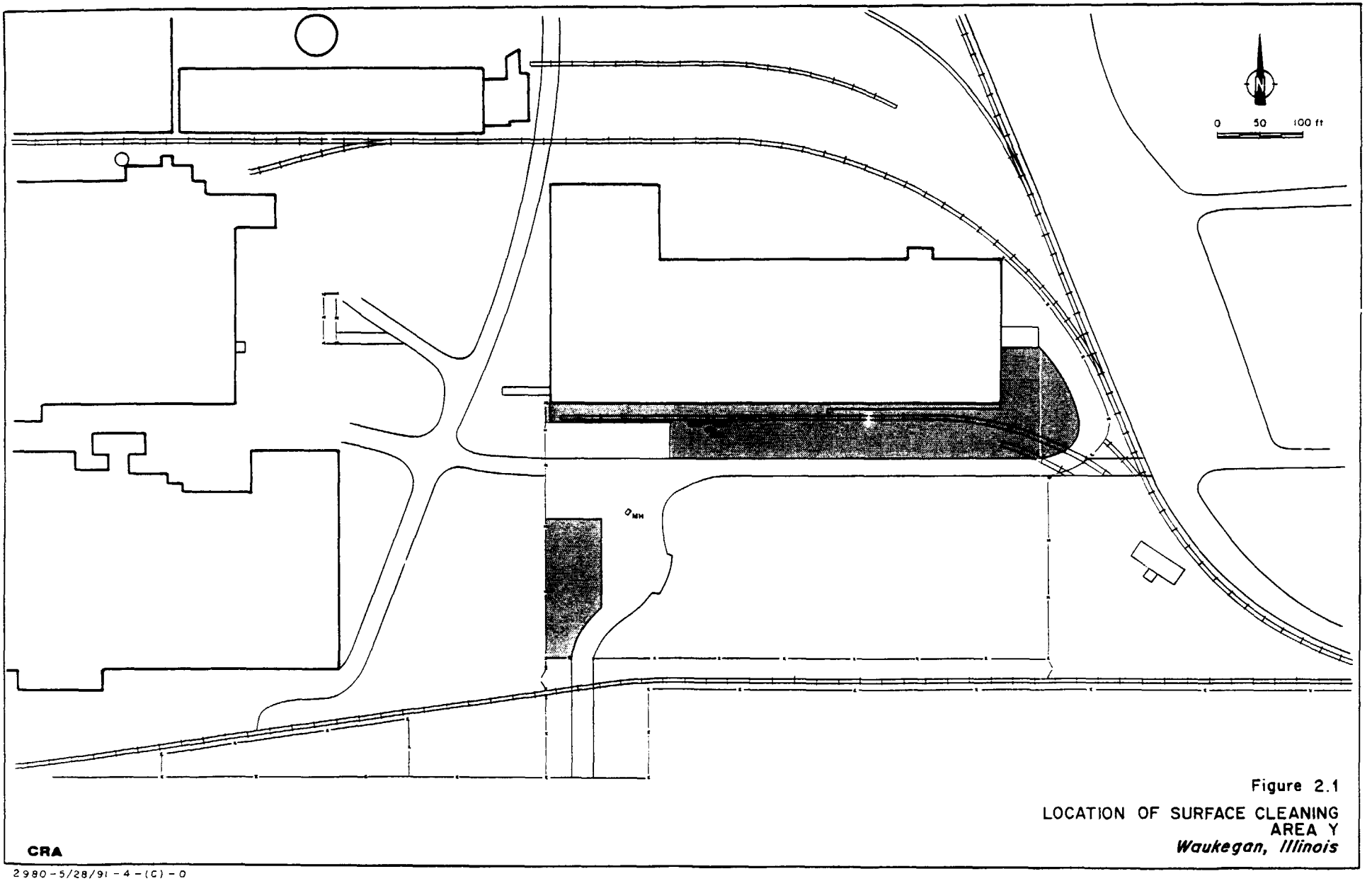


Figure 2.1

LOCATION OF SURFACE CLEANING AREA Y

Waukegan, Illinois

CRA

2980-5/28/91-4-(C)-0

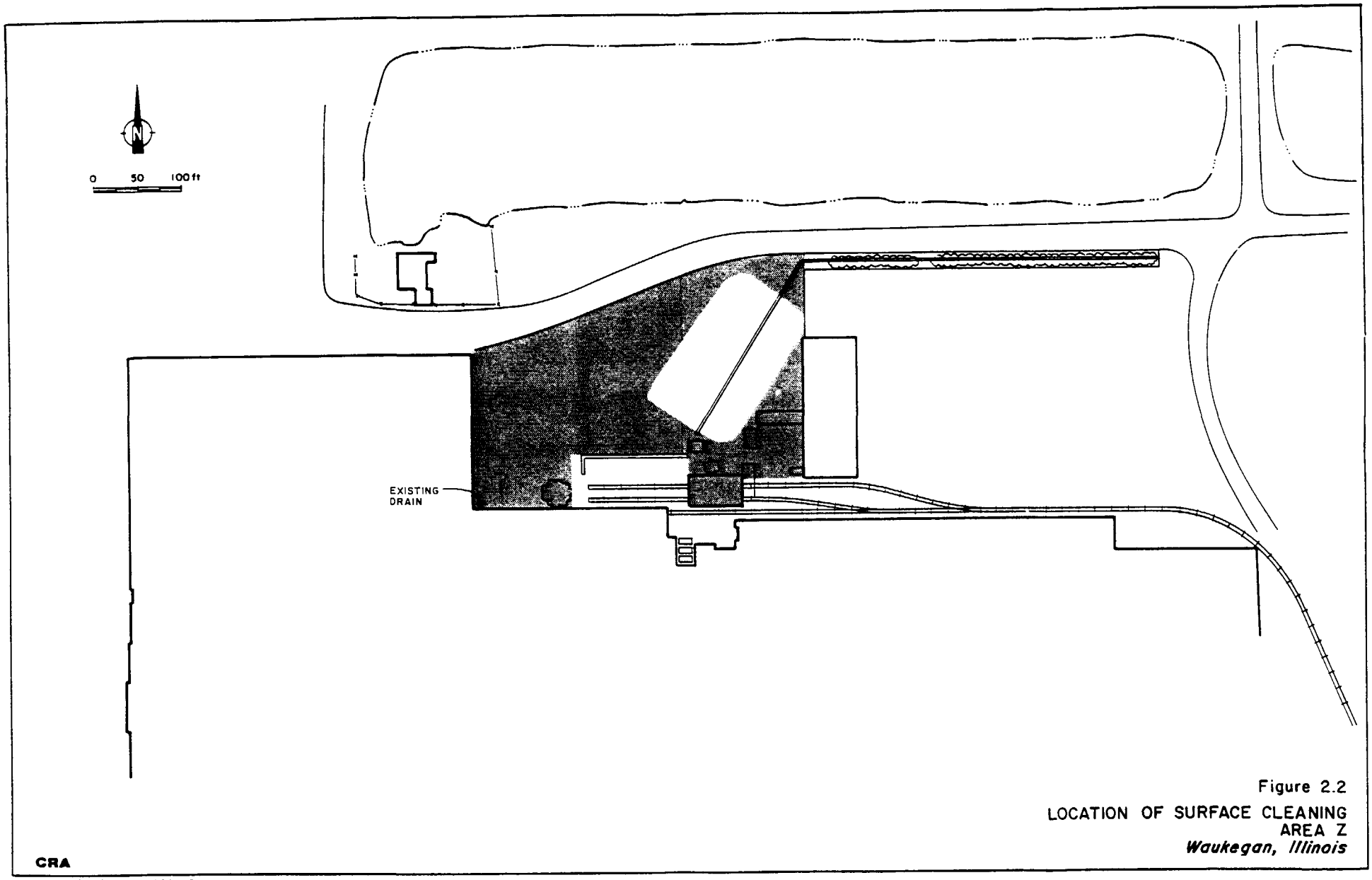


Figure 2.2
LOCATION OF SURFACE CLEANING AREA Z
Waukegan, Illinois

CRA

2980 - 5/28/91 - 4 - (C) - 0

Following completion of the surface cleanup, Manville's on-site representative (OSR) and USEPA's on-scene coordinator (OSC) shall visually inspect the areas addressed and confirm completeness of the clean-up effort.

2.3 GRAVEL AND ASPHALTIC CONCRETE PAVING

2.3.1 General

All areas designated to receive placement of the asphaltic concrete cover are identified on Figures 2.3 and 2.4. The cover will be a minimum of eight inches in depth and will consist of a 6-inch thick minimum crushed road gravel subbase overlain by a 2-inch thick minimum Class I surface course asphaltic concrete surface constructed in accordance with the Illinois Department of Transportation (IDOT) standards for road and bridge construction. Typical cross-sections are presented on Figure 2.5. Prior to any work being performed, the areas will be moistened by water in order to prevent any fugitive or visible emissions.

2.3.2 Proof Rolling and Grading

The areas designated to receive the asphaltic concrete pavement will be proof rolled and graded following close cutting. The proof rolling will be accomplished with a minimum of 12 passes of a heavy vibrating drum compactor (Dynapac CA-25 or equivalent). Minimal grading

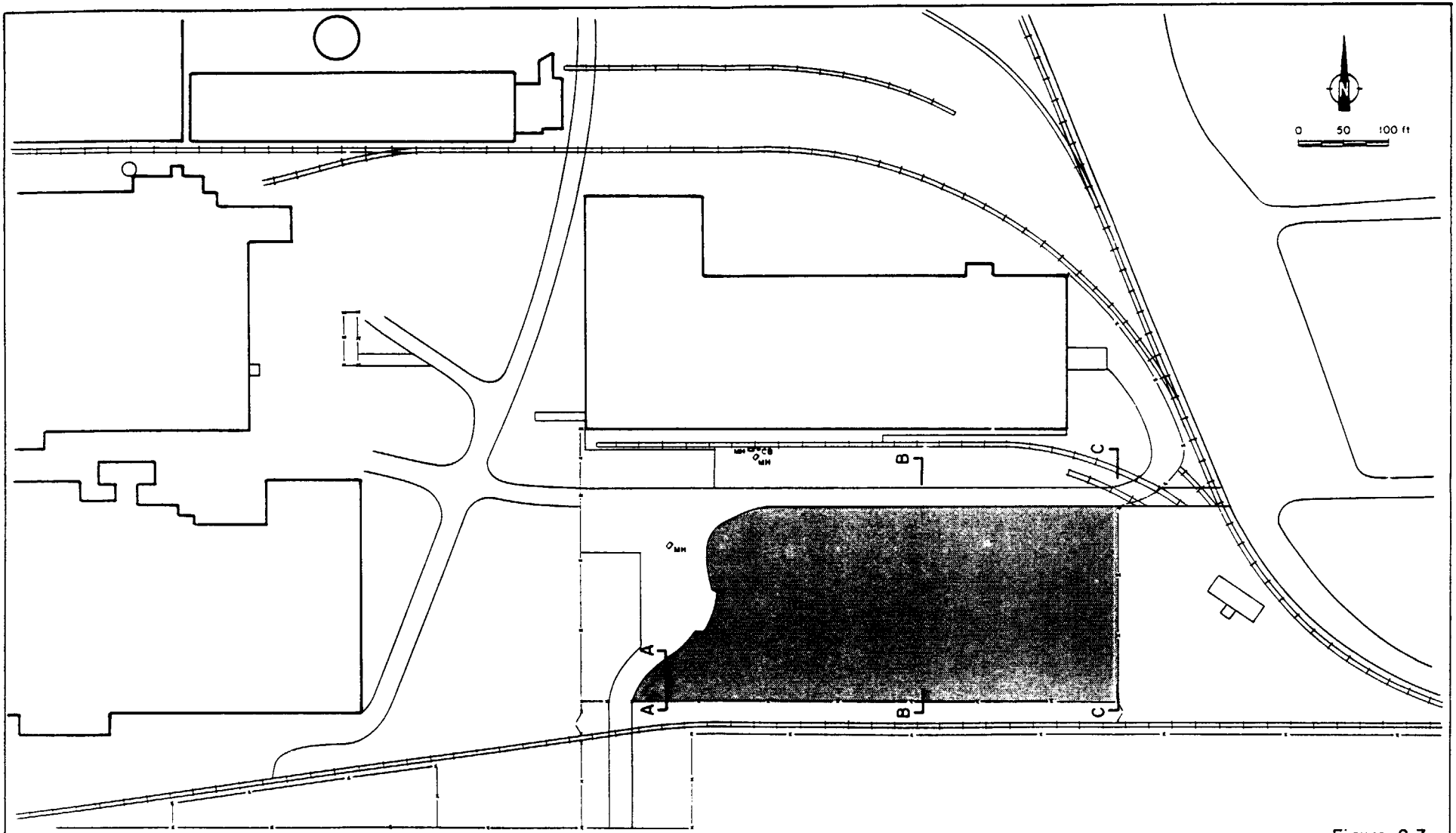


Figure 2.3
AREA OF ASPHALTIC CONCRETE PAVING
AREA Y
Waukegan, Illinois

CRA

2980 - 5/28/91 - 4 - (C) - 0

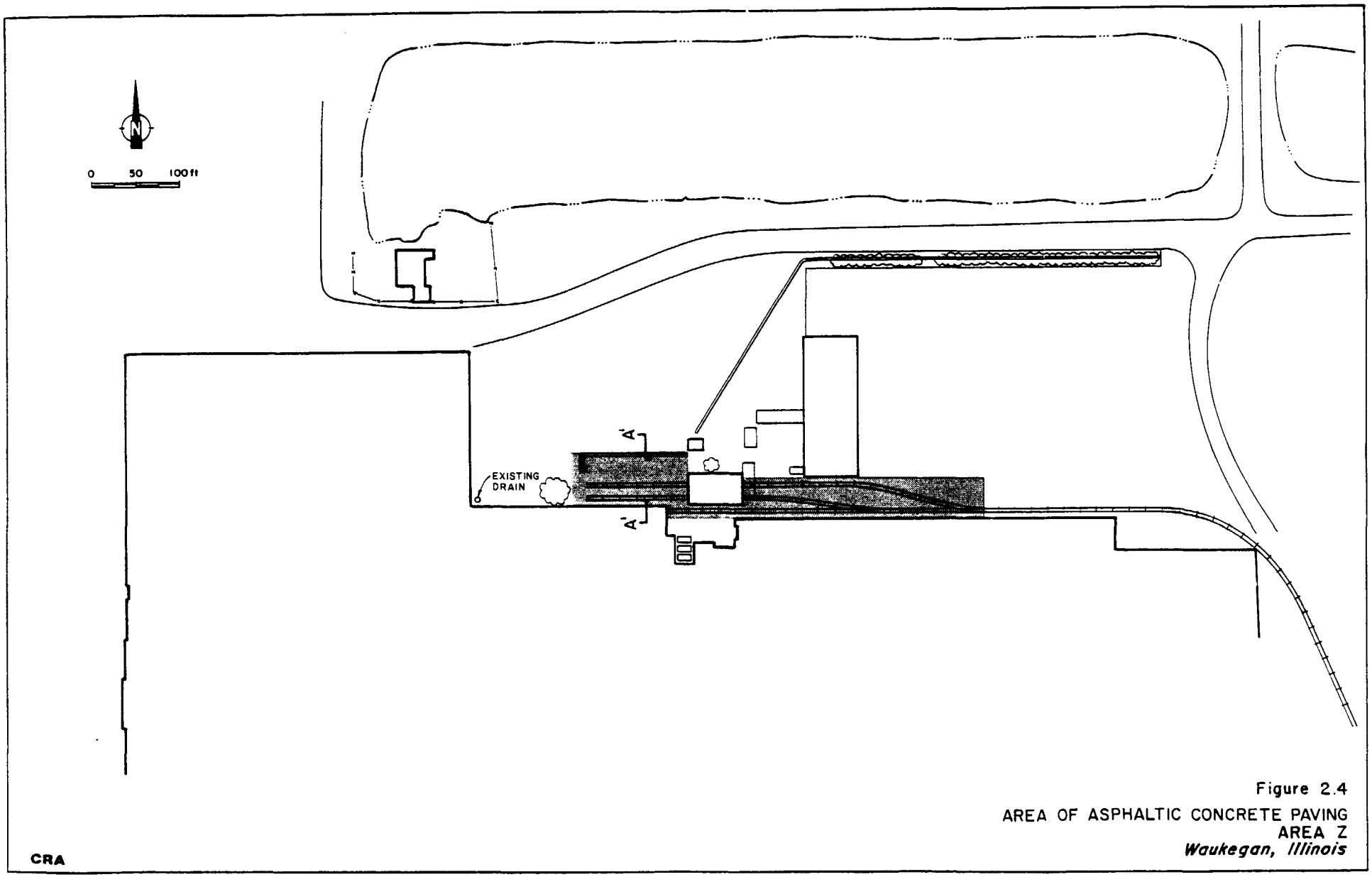
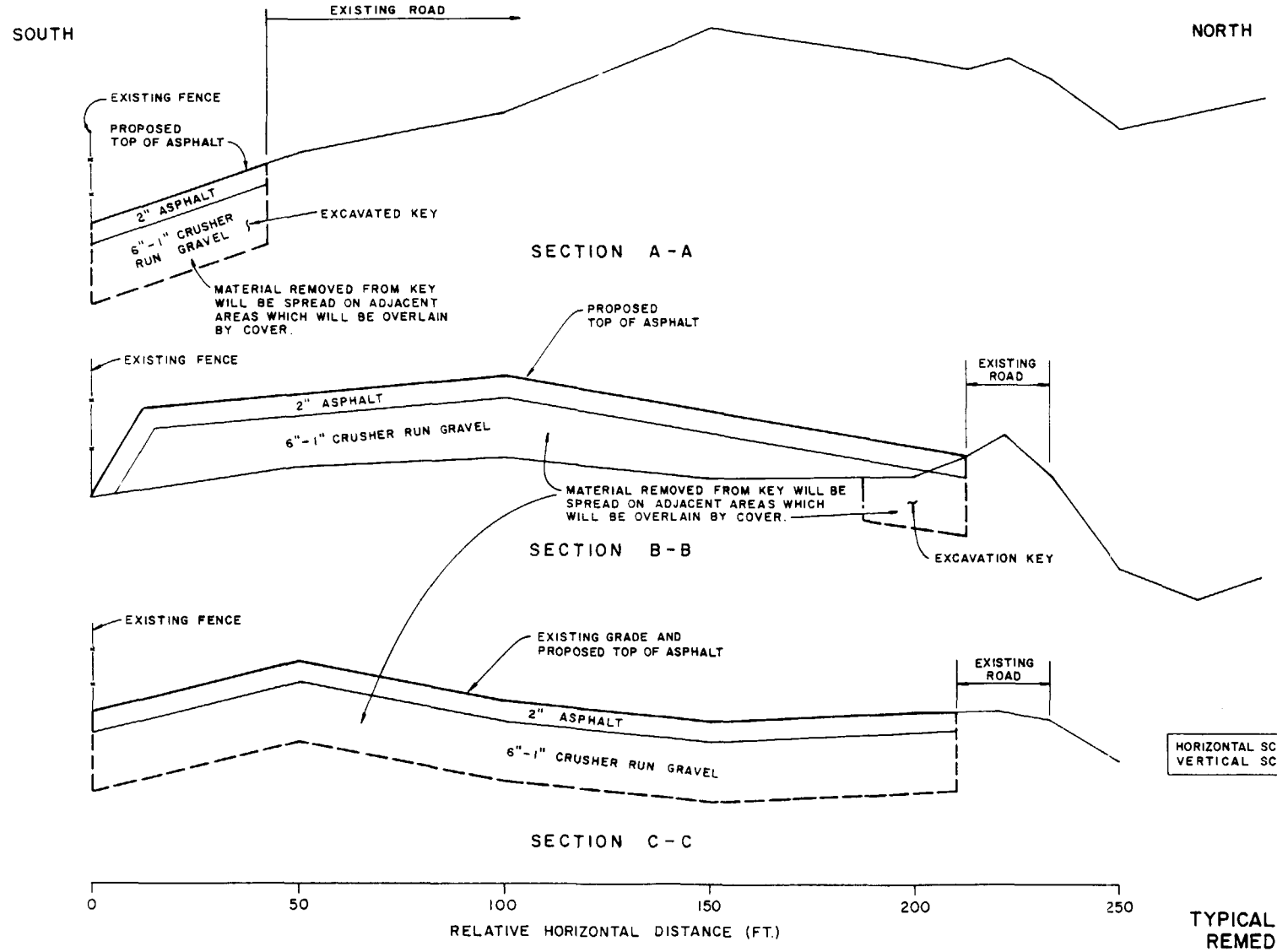


Figure 2.4
AREA OF ASPHALTIC CONCRETE PAVING
AREA Z
Waukegan, Illinois

CRA

2980-5/28/91-4-(C)-0



CRA

2980-6/3/91-4-(C)-1

Figure 2.5

TYPICAL CROSS SECTIONS
REMEDIATION OF AREA Y
Waukegan, Illinois

will be performed in order to key the gravel cover into the existing topographical features at the perimeter of the work areas and to maintain grades sufficient to promote positive drainage. Work areas will be continuously wetted by water during these operations.

2.3.3 Construction of Granular Sub-Base

Following grading and proof rolling, the work areas will be inspected by Manville's OSR and to document that positive surface drainage has been accomplished and to confirm that the native sub-grade is structurally sound. All existing storm water manholes and catch basins will be adjusted to the finished grade elevations.

A minimum of six inches of compacted, certified asbestos-free, one-inch crusher run road gravel will be placed over the entire area. Compaction testing will be performed to assure that a minimum density of 95% standard Proctor is achieved in the granular subbase layer.

2.3.4 Construction of Bituminous Surface Course

A 2-inch thick compacted IDOT Class I bituminous surface course will be constructed over the granular subbase as final cover. Joints between old and new pavements will be overlapped so as to ensure a thorough and continuous bond between the old and new pavements. The final grade will be proofed using a 10-foot straight edge.

2.3.5 Placement of Vegetated Remedial Soil Cover

The area designated to receive placement of the 24-inch thick vegetated soil cover is identified on Figure 2.6. The 24-inch thick vegetated soil cover will consist of a minimum 6-inch thick sand layer, a 15-inch thick clay layer, and a 3-inch thick seeded topsoil layer, in accordance with Article V (1)(a) of the Consent Decree. Additional sand cover will be used as common fill under the 24-inch thick soil cover to configure the area to promote positive drainage. All soil placement will be in accordance with Section 012200 of Attachment B, Specifications, dated June 1988, revised October 1988, prepared by C. C. Johnson and Malhotra (CCJM). Figure 2.7 presents cross-sections of the configuration of the soil cover.

2.3.6 Removal and Decontamination of Railroad Tracks

Railroad tracks within Area Z in the area which will receive an asphaltic concrete cover will be removed prior to placement of granular subbase. Removed tracks will be decontaminated by a high-pressure washer within the area to be paved and then moved to a storage area on Site pending subsequent reuse or disposal as scrap. Work areas will be maintained in a moist condition to preclude generation of visible emissions.

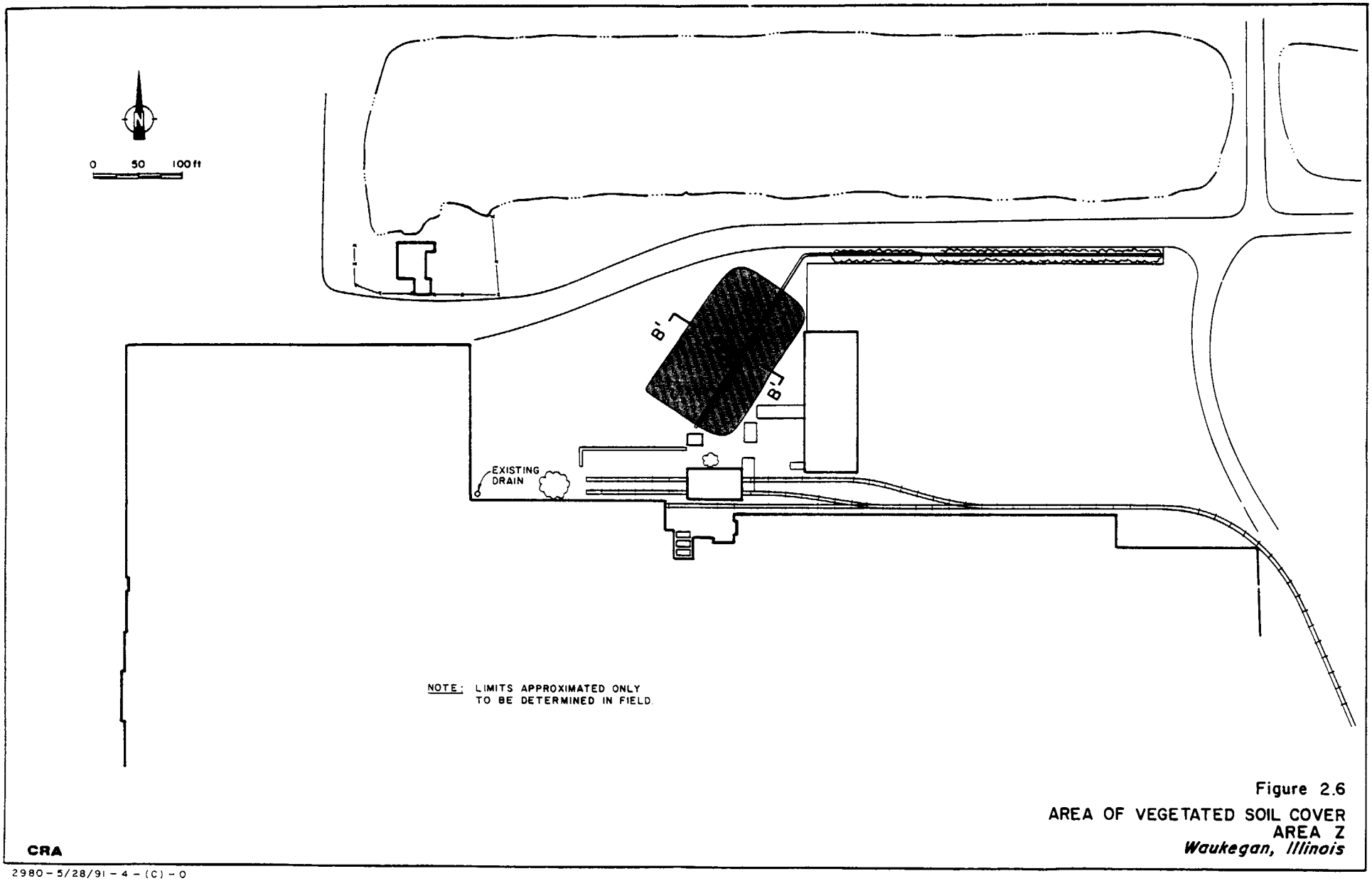


Figure 2.6
AREA OF VEGETATED SOIL COVER
AREA Z
Waukegan, Illinois

CRA

2980-5/28/91-4-(C)-0

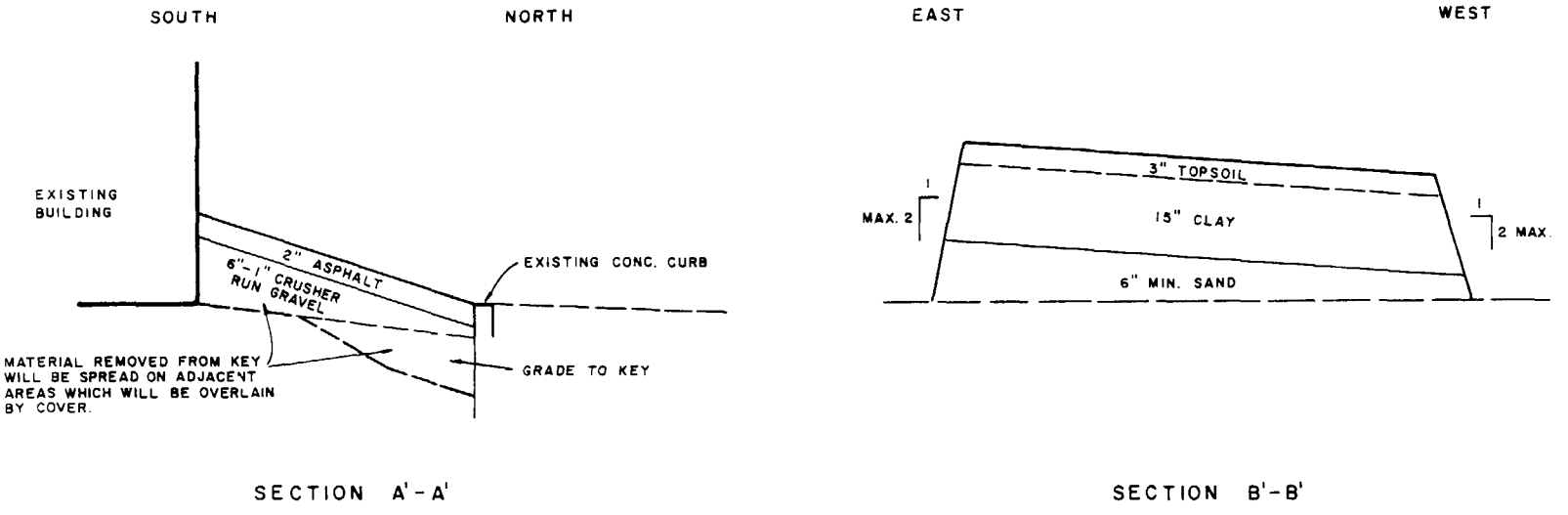


Figure 2.7
TYPICAL CROSS SECTIONS
AREA Z
Waukegan, Illinois

CRA

2980-6/3/91-4-(C)-1

3.0 HEALTH AND SAFETY

During the implementation of activities involving potential contact with ACM under this Work Plan, the guidelines of Attachment G, Health and Safety Plan, dated June 1988, revised October 1988 and prepared by CCJM will be followed. Under this Third Work Plan Supplement, potential contact with ACM is assumed to occur until designated areas have either been surficially cleaned or until sand or granular base course materials have been placed.

The remedial contractor will be responsible for furnishing all equipment, supplies and analytical analyses required under the Health and Safety Plan.

Personnel air monitoring will be conducted by the contractor while performing work involving potential contact with ACM. All analytical data collected will be submitted to Manville's OSR and maintained in the on-Site files. Perimeter passive air monitoring will not be performed.

4.0 SCHEDULE

All remedial construction described in this Third Work Plan Supplement shall be completed within 90 calendar days from USEPA's written approval. Following this date and USEPA and Illinois EPA approval of the O&M Plan, long-term maintenance and monitoring of areas addressed in this Third Work Plan Supplement shall commence in accordance with the approved Operations and Maintenance Manual for the Site.